SOCIAL
ENGINEERING
AND ROGUE
SOFTWARE
IT SECURITY ACADEMY
www.SecAcademy.com

INTRODUCTION

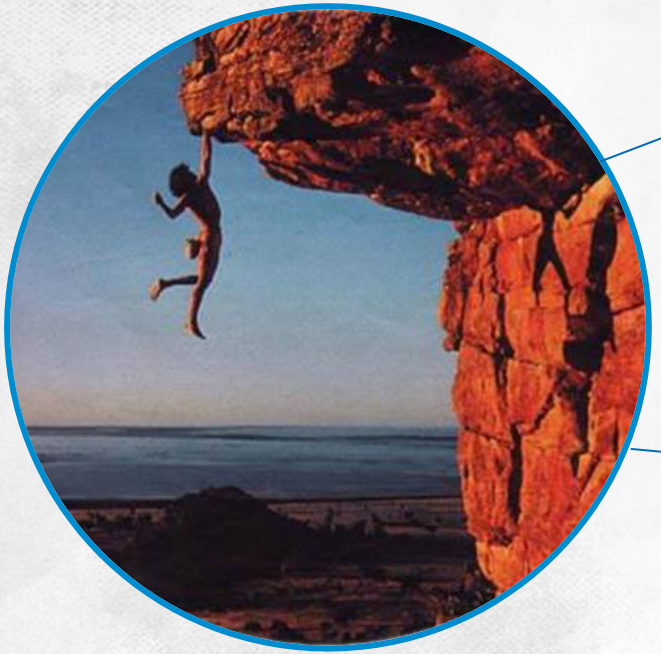
SOCIAL ENGINEERING EFFORTS AIM

to furtively goad people into doing what another person wants them to do
Social engineering attacks bypass most security solutions

WE USUALLY FALL VICTIM TO MANIPULATION WHEN:

- We're doing everyday tasks in an environment we know well
- They pertain to non-typical operations: when something requires time and effort, we usually choose the simplest, most obvious solution
- We rely on computer systems and software too much

INTRODUCTION



- **THE SUCCESS OF SOCIAL** engineering largely depends on attackers having obtained a large amount of data related to the victim. As people's views on privacy have undergone a radical change recently, obtaining personal information may be very easy

- **AT WWW.SOCIAL-ENGINEER.ORG** you'll find both manuals and social engineering tools

SOCIAL ENGINEERING:

manipulation tactics

GREED

(EVERY MAN HAS HIS PRICE...)

Personnel with low-paying jobs are especially susceptible to social engineering; they're people who believe they are paid less than they should be or who feel unaccepted in the workplace

DILUTING RESPONSIBILITY

(SMITH TOLD ME IT'S OKAY TO DO THAT...)

The attacker ensures the victim that the responsibility for taking or not taking a decision or action is someone else's (a co-worker's or your boss's)

SOCIAL ENGINEERING:

manipulation tactics

READINESS TO HELP

(COULD YOU GIVE ME A HAND, PLEASE?)

The attacker is a newly hired, perplexed worker, or an attractive blonde who repeatedly forgets passwords, or an elderly person who isn't technology-savvy. Adapting these roles, the attacker finds it easy to obtain confidential data or gain access to a system

RELATIONSHIP OF TRUST

(I'VE HELPED YOU, WHY CAN'T YOU DO ME A FAVOUR?)

In this scenario, the attacker helps another person solve a problem he had triggered earlier (such as re-connecting to the Internet or retrieving a service) and expects reciprocation from the victim

SOCIAL ENGINEERING:
manipulation tactics

EMOTIONAL BLACKMAIL
(YOU HAVE TO HELP ME!)

Most of us can't leave a person in need and will help out the attacker: even if it's just because we want them to stop bothering us

FRIENDSHIP
(YOU'RE THE ONLY ONE WHO UNDERSTANDS ME...)

First the attacker fosters a friendly relationship with the victim and then exploits this trust

SOCIAL ENGINEERING:

manipulation tactics

FEELING GUILTY

(SO YOU WON'T DO EVEN THIS FOR ME...)

When the attacker is able to make the victim feel guilty, this will make it easier to convince the victim to do as requested

READINESS TO CO-OPERATE

(LET'S DO THIS TOGETHER!)

The attacker suggests that the easiest way out of a problem (which was often caused by the attacker) is to work on it as a team

SOCIAL ENGINEERING:

manipulation tactics

FEAR
(DO THIS, OR ELSE...)

Blackmailing or making the victim fear the consequences may often make him co-operate with the attacker

EXERCISE: SOCIAL
engineering attacks

SPOOFING IDENTITIES USING A SERVICE:

- http://fakenamegenerator.com
- http://spooftel.com/
- http://fakemytext.com/

SOCIAL ENGINEER TOOLKIT ATTACKS:

- www.social-engineer.org
- Metasploit

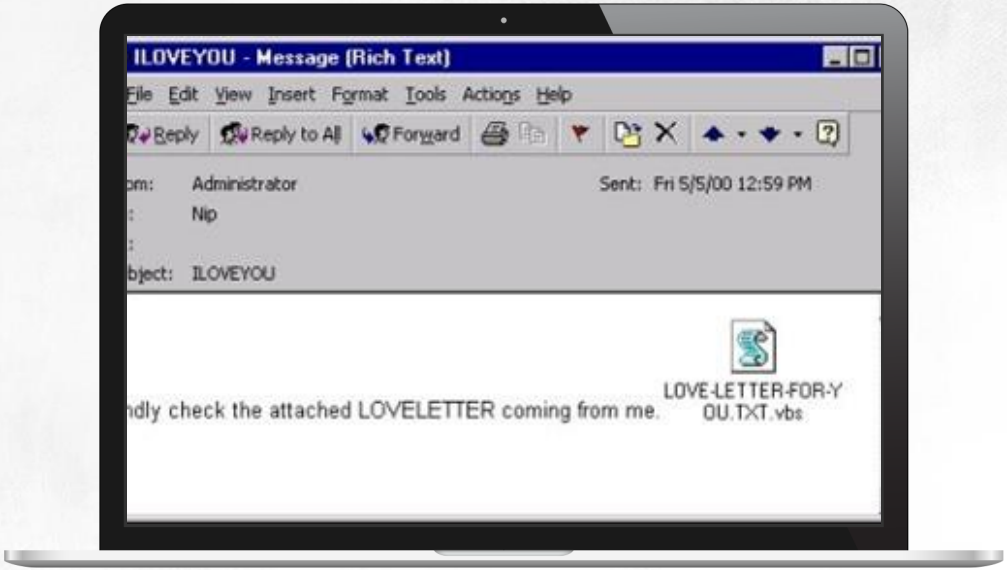
ROGUE SOFTWARE

AN EXCEEDINGLY POPULAR

and effective social engineering attack (usually launched in large-scale campaigns that target random Internet users). FraudTools, or rogue software is the software users are tricked into launching, installing or even purchasing

THIS TYPE OF ATTACK IS EASY

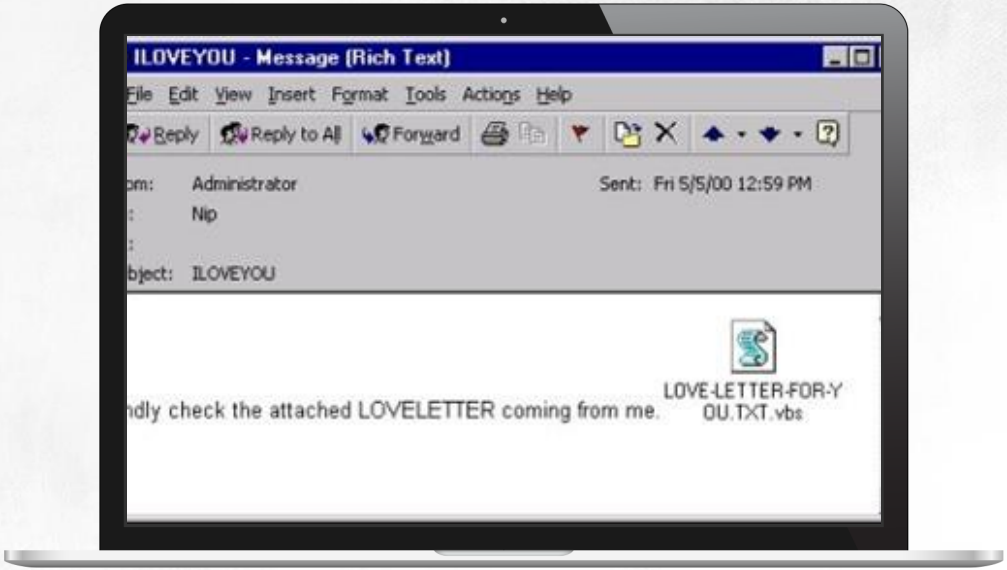
to automate. A case in point was a 2000 attack created by a hacker called Spyder, who mass-mailed email massages with a VBScript attached (VBScript LOVE-LETTER-FOR-YOU.TXT.vbs)



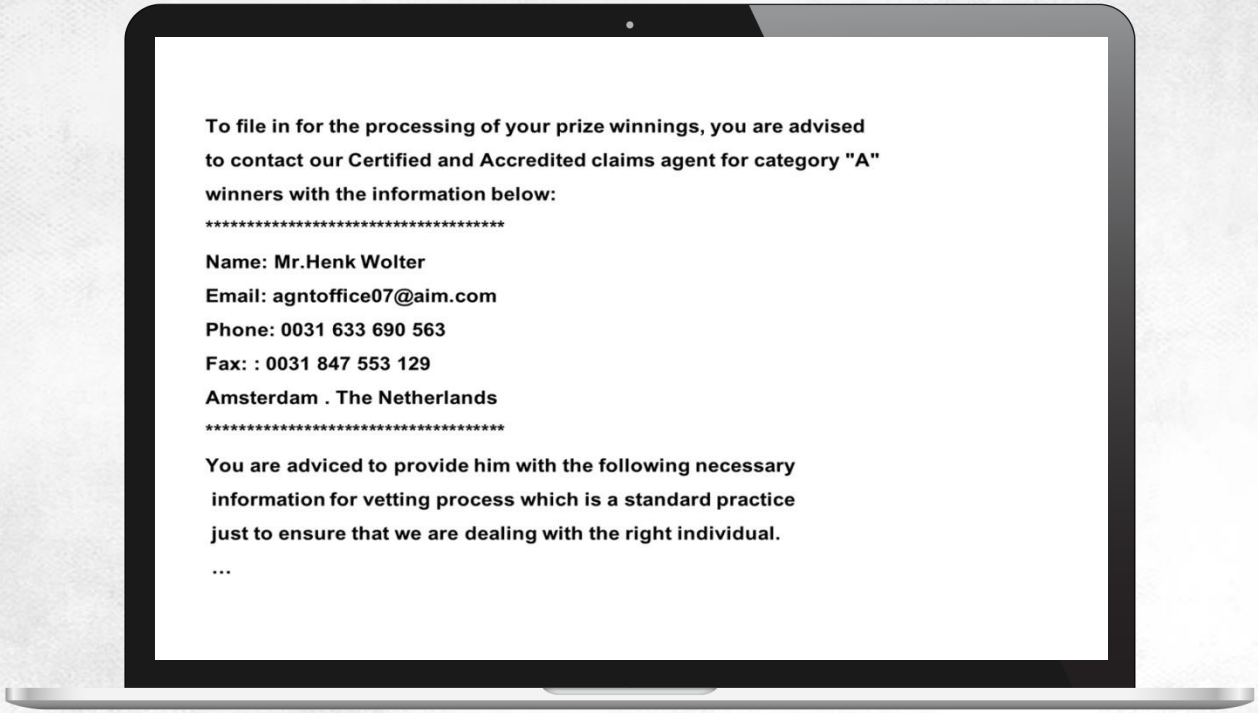
ROGUE SOFTWARE

OVER THREE MILLION PEOPLE wanted to find out who's in love with them and why and opened the attachment despite not knowing the source of the email

MASS-MAILING ROGUE EMAILS that tell recipients they have won money, received a great work proposal or request them to be their friends in a social networking site are still among the most common ways to obtain confidential information about targets



FAKE EMAILS

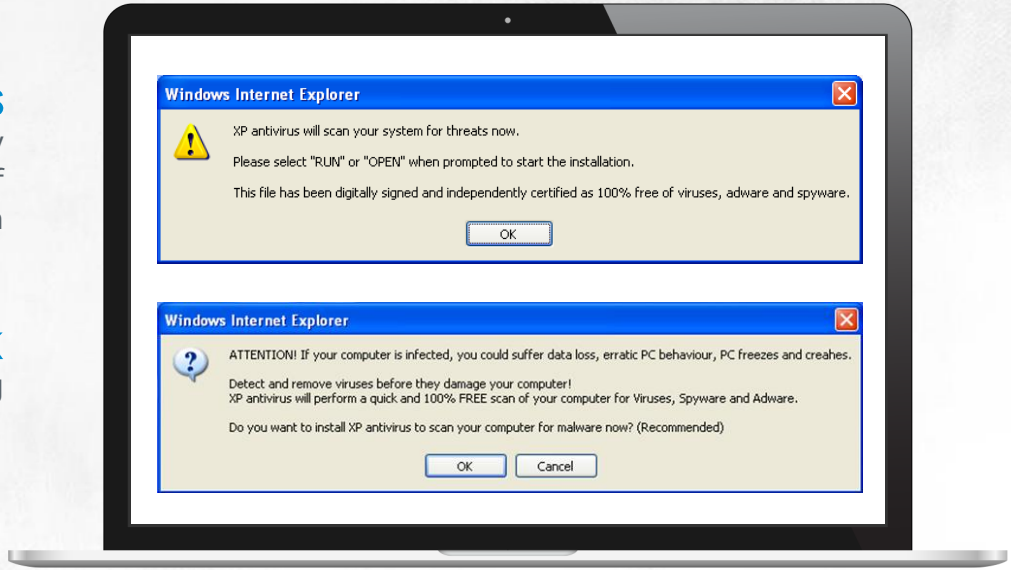

To file in for the processing of your prize winnings, you are advised
to contact our Certified and Accredited claims agent for category "A"
winners with the information below:
****
Name: Mr.Henk Wolter
Email: agntoffice07@aim.com
Phone: 0031 633 690 563
Fax: : 0031 847 553 129
Amsterdam . The Netherlands
****
You are adviced to provide him with the following necessary
information for vetting process which is a standard practice
just to ensure that we are dealing with the right individual.
...

FRAUDTOOLS: XP ANTIVIRUS

The First Warning

SOCIAL ENGINEERING ATTACKS employing rogue antiviruses are extremely effective, as proved by the thousands of people who bought fake antivirus scanners in 2008

THE FIRST STEP OF THE ATTACK was displaying an alarming-sounding warning message that looked like Windows messages


Windows Internet Explorer
XP antivirus will scan your system for threats now.
Please select "RUN" or "OPEN" when prompted to start the installation.
This file has been digitally signed and independently certified as 100% free of viruses, adware and spyware.
OK
Windows Internet Explorer
ATTENTION! If your computer is infected, you could suffer data loss, erratic PC behaviour, PC freezes and creahes.
Detect and remove viruses before they damage your computer!
XP antivirus will perform a quick and 100% FREE scan of your computer for Viruses, Spyware and Adware.
Do you want to install XP antivirus to scan your computer for malware now? (Recommended)
OK
Cancel

FRAUDTOOLS: XP ANTIVIRUS

The First Warning

THE WARNING WAS WRITTEN IN GOOD ENGLISH
and contained a clear, precise prompt: Detect and remove viruses before they damage your computer!

IF YOU STILL DIDN'T KNOW
what to do, the OK button was highlighted by default

WHEN YOU CLICKED OK, YOU WERE TOLD
that scanning and removal will be started in a moment, and that XP Antivirus is digitally signed, secure and independently certified as 100% free of viruses, adware and spyware

FRAUDTOOLS: XP ANTIVIRUS

You've got a problem, but we can solve it

SCANNING WAS STARTED simultaneously. In another window you could traced the progress of the scanning, even though the user did not agree to install any ActiveX controls or to download and start the antivirus

THE SCAN ALWAYS PRODUCED the same result: the computer was apparently infected with many malicious programs

THE ATTACKERS INFORMED users they could remove the malware quickly and in a secure way: they just need to agree to install XP Antivirus

FRAUDTOOLS: XP ANTIVIRUS

You can trust us

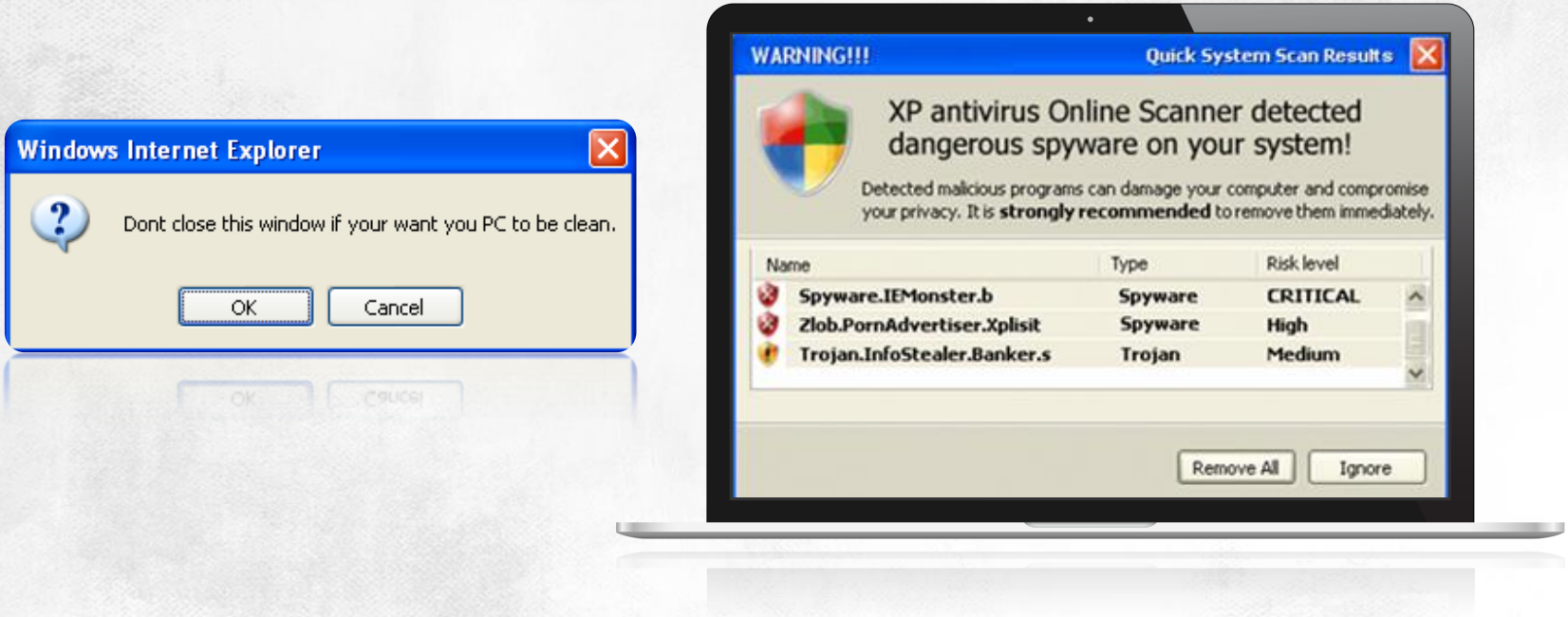
SO AS NOT TO RAISE any suspicions, the installer started at that point contained an icon resembling the one used by Windows Security Center and also had a Windows-compliant logo.

THE ATTACKERS ALSO prepared a license agreement users could (but were not forced to) accept before installing

XP antivirus 2008 Installer
This program will download and install XP Antivirus on your PC.
By clicking Continue button you accepting our terms and conditions.
Continue

FRAUDTOOLS: XP ANTIVIRUS

You can trust us



FRAUDTOOLS: XP ANTIVIRUS

And here's our license agreement

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FRAUDTOOLS: XP ANTIVIRUS

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FRAUDTOOLS: XP ANTIVIRUS

And here's our license agreement

2. REFUNDS POLICY
B. OUR 24/7 CUSTOMER SUPPORT SERVICE SHOULD BE CONTACTED FOR ANY TROUBLESHOOTING. CUSTOMER SUPPORT SERVICE SHOULD BE INFORMED IN THE EVENT THE CUSTOMER'S SYSTEM CRASHED FOR ANY REASON, IN ORDER FOR THE CUSTOMER TO BE ENTITLED TO CLAIM A REFUND. IF THE SUPPORT TEAM IS NOT CONTACTED, A REFUND WILL NOT BE MADE.
THIS REDUCES ALL PROBLEMS TO TECHNICAL DIFFICULTIES WHICH WILL BE RESEARCHED AND SOLVED. ANTIVIRUSXP2008.COM IS NOT RESPONSIBLE FOR ANY HELP THE CUSTOMER GETS FROM THIRD PARTY TECHNICIANS. ALSO ANY ACTIONS TAKEN BY THE CUSTOMER ARE MADE AT HIS OR HER RISK.
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F. **ANTIVIRUSXP2008.COM CANNOT BE HELD RESPONSIBLE FOR ACTIONS PERFORMED BY THE CUSTOMER WHEN NOT USING OUR SOFTWARE.**

FRAUDTOOLS: XP ANTIVIRUS

There's technical support in case you're still not sure

THE SCANNER'S website had a professional look and encouraged users to contact the support centre if need be

FRAUDTOOLS: XP ANTIVIRUS

Great you've installed the program, but...

AFTER THE ATTACKERS CONVINCE their victims to install the rogue antivirus and get rid of all legitimate antiviruses, they start tricking money out of them

TO COAX USERS TO ABANDON basic security practices and hand over their credit card numbers, the rogue antivirus

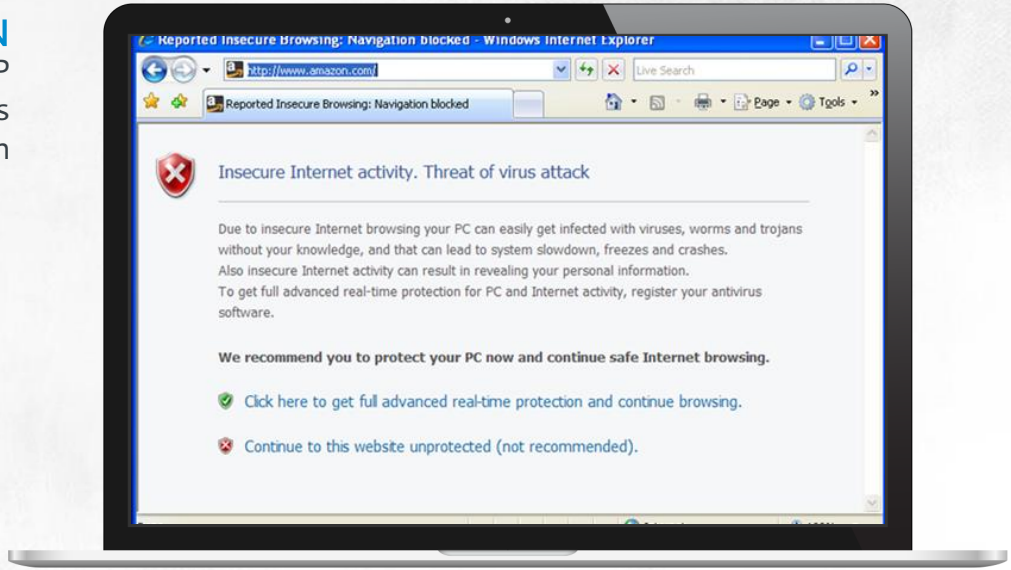
- Detected new viruses and malicious programs with each system restart

FRAUDTOOLS: XP ANTIVIRUS

... It's time you paid...

REPLACED A USER'S SCREEN saver with one that simulated the STOP system error message. To conceal this change, it hid the Screen Saver tab from users

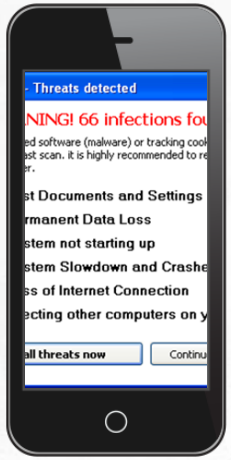
INSTALLED AN INTERNET EXPLORER PLUGIN that intercepted some communications with random websites and displayed a warning that resembled the standard system warning about insecure websites or websites that lack a valid certificate

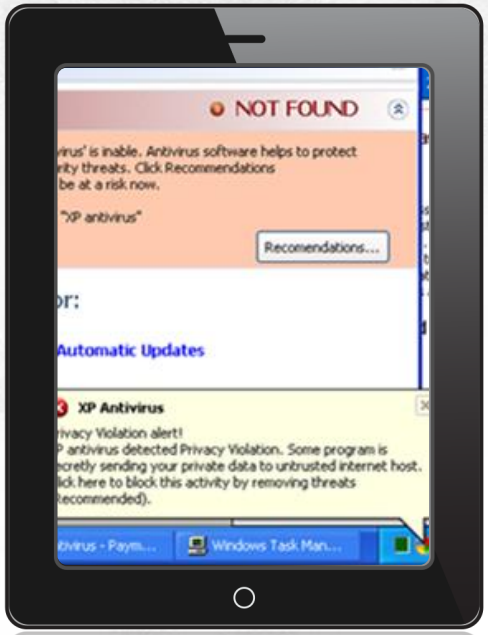

Reported Insecure Browsing: Navigation Blocked - Windows Internet Explorer
http://www.amazon.com/
Live Search
Reported Insecure Browsing: Navigation blocked
Page
Tools
Insecure Internet activity. Threat of virus attack
Due to insecure Internet browsing your PC can easily get infected with viruses, worms and trojans without your knowledge, and that can lead to system slowdown, freezes and crashes.
Also insecure Internet activity can result in revealing your personal information.
To get full advanced real-time protection for PC and Internet activity, register your antivirus software.
We recommend you to protect your PC now and continue safe Internet browsing.
Click here to get full advanced real-time protection and continue browsing.
Continue to this website unprotected (not recommended).

FRAUDTOOLS: XP ANTIVIRUS

... or someone will be reading your private messages

- **REGULARLY (INTRUSIVELY) DISPLAYED** reminders about how risky it was to use an infected machine
- **DISPLAYED A RED SHIELD ALERT** on the status bar that warned users about no antivirus being found. It also displayed other warnings at regular intervals





FRAUDTOOLS: XP ANTIVIRUS

You do trust antiviruses, don't you?

Registered a rogue Security Center window in the system. This Security Center detected XP Antivirus and recommended users to install it

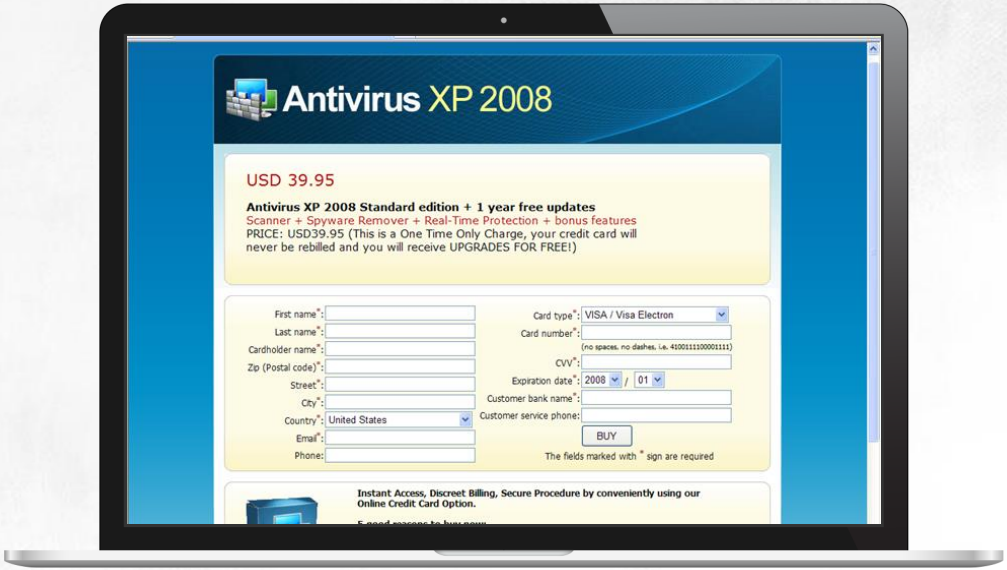
Windows Security Center
Security Center
Help protect your PC
Resources
Get the latest security and virus information from Microsoft
Check for the latest updates from Windows Update
Get support for security-related issues
Get help about Security Center
Change the way Security Center alerts me
Security essentials
Security Center helps you manage your Windows security settings. To help protect your computer, make sure the three security essentials are marked ON. If the settings are not ON, follow the recommendations. To return to the Security Center later, open Control Panel.
What's new in Windows to help protect my computer?
Firewall ON
Automatic Updates ON
Virus Protection NOT FOUND
Windows did not find antivirus software on this computer. Antivirus software helps protect your computer against viruses and other security threats. Click Recommendations for suggested actions you can take. How does antivirus software help protect my computer?
Note: Windows does not detect all antivirus programs.
Recommendations...
Manage security settings for:
Internet Options
Windows Firewall
Automatic Updates
t Microsoft, we care about your privacy. Please read our privacy statement.
Windows Security Center
Security Center
Help protect your PC
Resources
Get the latest security and virus...
Check for the latest updates fro...
Get support for security-related...
Get help about Security Center
Change the way Security Cente...
Security essentials
Security Center helps you to manage your Windows security settings. To protect your computer, make sure the three security essentials are turned ON. If the settings are not ON, follow the recommendations. To return to the Security Center later, open Control Panel.
Firewall ON
Automatic Updates ON
Virus Protection NOT FOUND
Windows Security Center reports that 'XP antivirus' is inable. Antivirus software helps to protect your computer against viruses and other security threats. Click Recommendations for the suggested actions. Your system might be at a risk now.
Note: Windows detect unregistered version of "XP antivirus"
Click here to get XP antivirus License
Recomendations...
Manage security settings for:
Internet Options
Automatic Updates
Windows Firewall

FRAUDTOOLS: XP ANTIVIRUS

The Great Finale

PEOPLE WHO FELL VICTIM

to this manipulation and registered a copy of XP Antivirus were in for a nasty surprise: instead of paying 39.95 dollars they were charged from 89.20$ up to even 400$


Antivirus XP 2008
USD 39.95
Antivirus XP 2008 Standard edition + 1 year free updates
Scanner + Spyware Remover + Real-Time Protection + bonus features
PRICE: USD39.95 (This is a One Time Only Charge, your credit card will never be rebilled and you will receive UPGRADES FOR FREE!)
First name*:
Last name*:
Cardholder name*:
Zip (Postal code)*:
Street*:
City*:
Country*: United States
Email*:
Phone:
Card type*: VISA / Visa Electron
Card number*:
CVV*:
Expiration date*: 2008 / 01
Customer bank name*:
Customer service phone:
BUY
The fields marked with * sign are required
Instant Access, Discreet Billing, Secure Procedure by conveniently using our Online Credit Card Option.

FRAUDTOOLS: XP ANTIVIRUS

The Great Finale

A LOT OF WORK WENT into this program

THERE WERE VERY MANY others like this one

AntiSpywareMaster
Online protection against malicious software
Tue Jan 15 2008
Antivirus scanner
ENCRIPTED
Secure site
Windows Internet Explorer
Your computer has been running slower than normal, it may be infected with Viruses, Adware or Spyware.
AntiSpywareMaster will perform a quick and completely FREE scan of your system for malicious programs.
Download AntiSpywareMaster for FREE now!
OK
Cancel

THANKS